

The opinion in support of the decision being entered today  
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOACHIM HAGMEIER, JUTTA KREYSS,  
and MARK BASSAM SALEM

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Appeal No. 2007-2169  
Application No. 10/068,369  
Technology Center 3600

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Decided: August 31, 2007

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Before TERRY J. OWENS, HUBERT C. LORIN, and LINDA E.  
HORNER, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from a decision of the Examiner rejecting claims 1 and 3-10.<sup>1</sup> 35 U.S.C. § 134 (2002). We have jurisdiction under 35 U.S.C. § 6(b) (2002).

The invention is directed to a system for processing user transaction data in accordance with loyalty rules. Customer loyalty programs are well known. Specification, p. 1, para. [002]. The invention seeks to capture customer data and process them in accordance with loyalty rules corresponding to a loyalty program.

The claims are rejected as follows:

- Claims 1 and 3-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wong (US Patent 6,119,933) in view of Kawan (US Patent 6,889,198 B2).

We AFFIRM.

Appellants, in the Appeal Brief<sup>2</sup>, argue claims 1 and 3-10 as a group. Accordingly, pursuant to the rules, the Board selects representative claim 1 to decide the appeal with respect to this rejection, and claims 3-10 will stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2006). Claim 1 reads as follows:

1. A computer system comprising
  - a) a back-end computer having a first database for storing loyalty rules and user data;
  - b) a point of sale terminal including a front-end computer having a second database for storing loyalty rules and for storing user

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<sup>1</sup> Claim 2 has been canceled.

<sup>2</sup> Our decision will make reference to Appellants' Appeal Brief ("Br.," filed Nov. 21, 2006) and the Examiner's Answer ("Answer," mailed Jan. 29, 2007).

data and a spreadsheet engine for processing user transaction data in accordance with the loyalty rules; and

c) a communication link connecting the back-end computer and the front-end computer for synchronization of the first and the second databases.

#### A. Issue

The Examiner contends that Wong teaches all the claimed limitations except that “Wong does not explicitly disclose that the central/back end computer updates the loyalty rules stored on the POS/front end computer.” Answer 9. For this, the Examiner relies on Kawan which, according to the Examiner “discloses that loyalty rules on front end are updated from and synchronized with the back end and that the front end rules are utilized for processing transactions at the POS terminal.” Answer 10. The Examiner finds that the combination of Wong and Kawan renders obvious the claimed system. Answer 10-11.

Appellants contend that the cited references do not disclose storing customer loyalty information in the front end computer. Appellants argue, “In the Wong system, customer loyalty information is described only as being stored in a central data warehouse. See Column 2, lines 3-15 ... While the Wong specification does indicate that a point of sale system may include a local database, the only function that database appears to be used for is to identify the customer. See Wong, column 1, lines 31-42.” Br. 6. Appellants further argue, “The Kawan reference clearly does not teach including a front-end computer device in a point-of-sale terminal to provide point-of sale customer loyalty program processing capability. Numerous references in the Kawan specification make it clear the loyalty program

application is resident only on the smart card, not on a front end computer integrated into a point of sale terminal.” Br. 7.

The issue is whether Appellants have shown that the Examiner erred in holding the combination of Wong and Kawan would have rendered the subject matter of claim 1 obvious to one of ordinary skill in the art at the time of the invention on the ground that there is no teaching of loyalty information stored in a front-end computer at the point of sale.

#### B. Findings of Fact

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Claim 1 calls for “a point of sale terminal including a front-end computer” for storing loyalty rules and user data.
2. The Specification gives no special meaning to the term “front-end computer.” See Specification, p. 7, paras. [029]-[030], referring to Fig. 7. The Specification describes the front-end computer as a device that captures user and transaction data and holds a copy of the loyalty rules and terminal data relating to the point-of-sale terming to which it belongs. Specification, p. 7, para. [029]. According to the Specification, “the front-end computer 77 [see Fig. 7] is coupled to a point-of-sale terminal computer 78 for information exchange and control. . . . The front-end computer 77 and point-of-sale terminal computer 78 can be integrated into the same physical unit *or they can be realized by way of two separate devices.*” Specification, p. 7, para. [029]. Accordingly, “front-end” computer refers to a device or devices located at the point of sale. The ordinary and customary meaning of

“computer” is a device used for computing (see *Webster’s New World Dictionary*, Third College Edition, 1988, p. 286).

3. Kawan discloses a smart card with a microprocessor. Col. 3, ll. 25-47. (See also Fig. 1; “a credit card-sized plastic card embedded with microcomputer 6 [see Fig. 1] having memory to set up and securely store at least one merchant loyalty register,” col. 4, l. 67 – col. 5, l. 3.) A loyalty program application can be stored in the card’s memory. See col. 2, ll. 40-44; col. 5, ll. 19-21 (referring to Fig. 2); col. 5, ll. 46-47; and col. 6, ll. 9-11. A user’s transaction information can also be stored on the smart card microcomputer. Col. 2, ll. 23-26. The card can be inserted at a terminal at, for example, a point of sale, to update the loyalty points that accumulate in the smart card upon completing each merchant transaction. Col. 6, ll. 40-55.

### C. Principles of Law

#### *Claim construction*

“The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction ‘in light of the specification as it would be interpreted by one of ordinary skill in the art.’ *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 [70 USPQ2d 1827, 1830] (Fed. Cir. 2004).” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 USPQ2d 1321, 1329 (Fed. Cir. 2005).

#### *Obviousness*

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 18, 148 USPQ at 467.

#### D. Analysis

Appellants argued solely that the cited references do not disclose storing customer loyalty information in a front-end computer. We find Kawan discloses this claim element.

Claim 1 describes a system that comprises a “front-end computer.” The claim does not further describe the “front-end computer” except in terms of what it stores (i.e., “a second database for storing loyalty rules and for storing user data and a spreadsheet engine for processing user transaction data in accordance with the loyalty rules”) and that it is included in a point-of-sale terminal. The Specification provides a similarly broad description of the front-end computer. FF 2. Accordingly, the broadest reasonable construction of the term “front-end computer” in claim 1 in light of the

Specification as it would be interpreted by one of ordinary skill is that it refers to a device or devices used for computing and located at the point of sale for storing loyalty rules and user data and for processing the user data in accordance with the loyalty rules. FF 2. Kawan discloses such a device.

The Kawan smart card is a device used for computing and thus falls within the scope of the term “computer” as used in the claim. FF 3. Further, the smart card is designed to be inserted in a point-of-sale terminal. Since the smart card is thus located at the point of sale, it can be characterized as a “front-end computer.” Kawan’s smart card/terminal thus meets the limitation for “a point of sale terminal including a front-end computer” in the claimed system. Finally, Kawan’s smart card includes capabilities to store user data and store and run a loyalty program application that calculates loyalty points (presumably in accordance with certain rules) corresponding to a user’s data (i.e., a user’s transaction information). FF 3.

Given that we find that Kawan shows a front-end computer to the extent claimed, the question now is whether there is an indication or suggestion to store customer loyalty information in Kawan’s front-end computer. In that regard, Appellants argue that “[t]he Kawan reference clearly does not teach including a front-end computer device in a point-of-sale terminal *to provide point-of sale customer loyalty program processing capability*. Numerous references in the Kawan specification make it clear *the loyalty program application is resident only on the smart card, not on a front end computer integrated into a point of sale terminal.*” Br. 7 (emphasis added). Appellants concede that Kawan discloses a loyalty program application (see also FF 3) but argue that the loyalty program application resides on the smart card rather than the front-end computer. However, given

that we construe the claim term “front-end computer” broadly so as to encompass Kawan’s smart card, it follows that we find that Kawan’s the loyalty program application, though it resides on a smart card, necessarily resides on a “front-end” computer.

Appellants’ argument it is thus unpersuasive.

#### E. Conclusion of Law

On the record before us, Appellants have failed to show that the Examiner erred in rejecting the claims over the prior art.

### DECISION

The decision of the Examiner rejecting claims 1 and 3-10 over Wong and Kawan is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

### AFFIRMED

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